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Mr. Paul Kalv
Director, Electric Department
City of Leesburg
2010 Griffin Road
Leesburg, FL 34748

Subject: **Proposed General Service Demand Rate Restructuring**

Dear Paul:

In accordance with an Agreement for Professional Services dated June 8, 2009 (the “Agreement”), the City of Leesburg (the “City”) engaged Doug Handley, doing business as Utility Consulting Services (the “Consultant”), to perform certain analyses of the City’s electric rates and provide recommendations for the City’s consideration (the “Electric Rate Study”). The scope of services for the Electric Rate Study had two phases. Phase I results were presented to the City in a letter report from the Consultant dated August 23, 2009. Based on the results of Phase I, the Consultant was authorized to proceed with Phase II of the study, subject to certain agreed adjustments to the Phase II scope. One of the modifications to the scope of services was the addition of the following task:

- Restructure Demand Rates – Evaluate and recommend potential restructured rates for the general service demand rate class to (a) segregate the class according to size and (b) implement an appropriate price signal that more closely reflects the demand charges from the Florida Municipal Power Agency (“FMPA”) and therefore encourages conservation and energy efficiency by large customers.

The Electric Rate Study final, or “Phase II”, report was dated November 11, 2009. The Electric Rate Study report included recommended adjustments to the existing rates, but did not address the demand rate restructuring, which was deferred until the next annual inflation adjustment to be effective November 1, 2010. The findings and recommendations of the Consultant with respect to the proposed demand rate restructuring are summarized in this letter report, which is presented for your consideration to complete the Electric Rate Study scope of services under the Agreement, as modified.

Background

Currently, the City's General Service Demand ("GSD") rate applies to all customers with demand greater than 20 kW. The City's objective is to consider segmenting this rate class by size, which could allow a different rate "tilt", or the relationship between the demand and energy charges, for customers of different sizes. For example, small demand customers should get a relatively smaller demand charge and a larger energy charge, which is closer to the rate structure for the smaller non-demand customers (i.e. a zero demand charge with a commensurately larger energy charge). Conversely, larger demand customers may respond better to a larger demand charge with a smaller energy charge. For these larger customers, the hourly load profile may be subject to more control and the resulting rate structure would be more closely aligned with actual incremental costs of power supply. The City has directed that any proposed adjustments to the general service demand rate structure should be revenue neutral in total.

The current GSD rate structure, reflecting the adjustments recommended in the Electric Rate Study and approved by the City Commission on December 14, 2009, is summarized in the table below along with the test year billing units and pro forma annual revenues as developed in the Electric Rate Study:

Leesburg Existing General Service Demand Rate				
Customer Charge	\$22.57	per month	5,633	\$127,102
Demand Charge	10.51	per kW	629,746	6,617,118
Energy Charge	0.04149	per kWh	231,355,253	9,599,169
BPCA¹	0.03739	per kWh	231,355,253	<u>8,650,264</u>
Total Annual Revenues				\$24,993,653

Ideally, the energy charge and the BPCA should be designed to recover variable costs and the customer and demand charges should recover fixed costs. As discussed in the Electric Rate Study, the BPCA has been designed to recover only variable costs of purchased power. A small portion of variable costs of purchased power plus all of the fixed or demand-related costs of purchased power are recovered from the other "base rates" shown above. The base rates must also recover all of the non-power revenue requirements, which are predominantly fixed costs.

Excluding the variable cost of purchased power, which is largely recovered by the BPCA, the majority of the remaining revenue requirements are fixed or demand-related costs. Yet a significant portion of these demand-related revenue requirements are recovered from the GSD energy charge. Therefore, the existing

¹ The rate shown for the Bulk Power Cost Adjustment ("BPCA") factor is the estimated average annual amount used in the Electric Rate Study for analysis purposes.

rate structure has some degree of “mismatch” between revenues and costs to be recovered. However, this is not unusual and is evident in electric rates throughout the industry. For example, the residential and non-demand rates have no demand charges but obviously must recover their share of demand-related costs through the energy charge component.

This balance of revenues recovered from the City’s demand charges versus energy charges must also be considered in the light of the demand charge and energy charge components of purchased power costs. For example, the relative demand and energy charges at the retail level would not be as significant if the fixed or demand-related wholesale power costs were fairly stable and predictable. However, the demand rates charged by FMPA are projected to vary on a monthly basis through 2010 in the range of \$14 to \$24 per kW – not only relatively high but also very unstable and somewhat unpredictable. Since such a large component of the City’s revenue requirements is determined by monthly peak demands, it would be less risky if more of the City’s revenues were also determined by monthly peak demands.

Approach

The basic purpose of the analysis herein is to segregate the existing GSD rate class into two or more rate classes. Therefore, the basic decisions include where to separate one rate class from another and what to charge each rate class. The following general steps were employed to develop the proposed restructured GSD rates:

1. Consider potential breakpoints within the rate class in light of (a) practices of investor-owned utilities in the State and (b) the make-up of the City’s GSD customers.
2. Develop rates for each of the new rate classes that increase the rate “tilt” for larger demand customers within the bounds of accepted practices of investor-owned utilities.
3. Ensure that the proposed rates are revenue-neutral compared to the existing rates.

To minimize disruption to customers and the administrative burden for the City, the recommended approach is to minimize the number of customers impacted while still achieving the restructuring objectives. Therefore, this proposed approach to the GSD rate restructuring will segregate a group or group of larger customers to which new rates would apply, but the remaining GSD customers would see no change from the existing rates.

As noted above, it is important to consider the practices of investor-owned utilities (“IOUs”) in the State because these utilities’ rates are closely regulated by the Florida Public Service Commission (the “FPSC”). The FPSC also regulates municipal electric rates to a certain degree – generally, the FPSC has jurisdiction over the City’s rate structure but not rate level (and rate structure includes the relative rate levels between classes). In certain instances, this provides the City with an opportunity to “piggyback” on the rate proceedings of the IOUs. In other words, if the FPSC has approved a rate structure or relative rate levels for an IOU, the City may use the IOU’s rates as justification to implement a similar relationship and the FPSC will likely approve it.

Rate Class Segregation

Therefore, the first consideration of the IOUs' rate structures is in how they define their respective demand-rate classes. The predominant IOUs in the State are Florida Power and Light Company ("FPL") and Progress Energy Florida, Inc. ("Progress"). Progress offers only one basic demand-rate class – GSD-1 – which is for any customer that uses 24,000 kWh or more per year. Obviously, this does not provide any helpful guidance for purposes of this analysis.

FPL, however, does segregate its basic demand customers into three separate rate classes, with the applicability defined as follows:

- GSD-1 – demand over 20 kW and less than 500 kW
- GSLD-1 – demand of 500 kW or more but less than 2,000 kW
- GSLD-2 – demand of 2,000 kW or more

To evaluate how well the FPL segregations would correspond to the City's customer base, twelve months of billing demands were analyzed. For each month, the GSD billing data was sorted based on kW demand. Based on review of this data, the following observations can be made:

1. The same two customers, and no others, had billing demands in excess of 2,000 kW every month. The next largest customer had a maximum demand of less than 1,800 kW. This indicates a very clear breakpoint at the 2,000 kW level.
2. The next nine customers had average monthly billing demands of greater than 500 kW. Each of these customers only dipped slightly below 500 kW for one or two months, if at all. Within this group, the customers closer to the 500 kW average demand showed less variability. This indicates a low probability of such customers being penalized by a "minimum 500 kW" billing demand provision. Conversely, the next two largest customers below 500 kW in average demands only exceeded 500 kW on seven and four of the twelve months and each showed considerable variability. No other customers exceeded 500 kW more than once. This indicates that 500 kW would also be a fairly clear breakpoint for the City's customer base.
3. Assuming the remaining GSD customers are not affected, only 11 total customers would be impacted by implementing the FPL segregations. Therefore, the new rate classes would be fairly easy for the City to implement and administer.

Based on the above observations, the FPL segregations are recommended for purposes of this evaluation, with suggested designations of GSD-1, GSD-2 and GSD-3 for the three rate classes. Using the billing data referred to above for the two new classes, the test year billing data for the proposed restructured demand rate classes are summarized in the following table:

	<u>GSD – 1</u>	<u>GSD – 2</u>	<u>GSD – 3</u>	<u>Totals</u>
Applicability – kW	20 – 500	500 – 2,000	Over 2,000	
Customer-months	5,501	108	24	5,633
Demands – kW	427,579	87,053	115,114	629,746
Energy – kWh	135,428,277	36,868,976	59,058,000	231,355,253

As shown above, a significant portion of the demand and energy would be billed under new rates by reclassifying a fairly small number of customers. In fact, the proposed GSD-3 rate class above would be larger than the existing general service non-demand rate class in terms of energy usage.

Proposed Rate Designs

Table 1 attached provides a comparison of the existing and proposed demand rates for the City compared to the FPL basic demand rates. On page 1 of 2, the City's existing GSD rate is compared to the FPL GSD-1 rate. This comparison indicates a ratio of 1.34 – using the same billing determinants and the assumed BPCA, the City's rates produce a bill 34% higher than FPL's rates. This ratio is presented as a benchmark for comparing the proposed rates to the relevant FPL rates. From the FPSC perspective, if the proposed rates maintain approximately the same ratio, the proposed rates should be considered representative of a fair allocation of revenue responsibility.

Also shown on Table 1 is the percentage of revenues produced by the variable charge components of each rate – 73% for the City's GSD rate and 74% for the FPL GSD-1 rate. This ratio indicates the degree of rate “tilt” toward the energy charges. The objective of this demand rate restructuring is to reduce this percentage so that a larger share of revenues is produced by demand charges.

The proposed restructured demand rates for the City are compared to the applicable FPL rates on Table 1, page 2 of 2. As shown on these comparisons, the ratios of bill amounts for each rate class are within a small range of the ratio before restructuring, indicating an acceptable allocation from the FPSC perspective. These comparisons also indicate that variable charge proportion of revenues from each of the proposed rates is less than from the existing rate. This variable charge proportion for each of the proposed rates is also less than for each of the comparable FPL rates, but not by such a great amount as to be considered a significantly different rate structure.

Table 2 presents a comparison of the revenues from the City's existing GSD rate and each of the proposed rates. As shown on this table, the proposed rates are effectively revenue neutral by class and in total.

Proposed Rates with Annual Inflation Adjustment

As discussed in the Electric Rate Study report, all inflation adjustments after July 1, 2007 should reflect the change in the Gross Domestic Product (“GDP”) implicit price deflator from the value published by the U. S. Bureau of Economic Analysis (the “BEA”) for the second quarter of 2007 [2] to the value for the second quarter of the adjustment year, as reported by the BEA no later than September 30 of the adjustment year. This methodology is illustrated in the following calculation of the annual inflation adjustment to be effective with billings starting on November 1, 2010:

Calculation of Annual Inflation Adjustment	
GDP Index – Second Quarter 2007 (final)	102.973
GDP Index – Second Quarter 2010 (as of September 30, 2010)	<u>110.488</u>
Cumulative Change in GDP Index	7.30%
Cumulative Effect of Inflation Adjustments since July 1, 2007 [3]	<u>6.88%</u>
Inflation Adjustment per Methodology [4]	0.39%

Table 3 attached presents the existing rates for residential (RS), general service, nondemand (GS) and GSD, before and after the GSD rate restructuring proposed herein. Table 2 also presents the RS, GS and restructured GSD rates as adjusted for the annual inflation adjustment calculated above. Therefore, the effect of the GSD may be implemented at the same time as the annual inflation adjustment.

Conclusions

The conclusions from this demand rate restructuring are:

1. The two new proposed demand rate structures progressively increase the demand charge revenue responsibility compared to the existing GSD rate.
2. The proposed demand rate structures are comparable to the FPL demand rate structures and meet the “Ocala Test” requirements of the FPSC.
3. The proposed demand rates are revenue neutral compared to the existing GSD rate.

² The value used for the second quarter of 2007 GDP implicit price deflator (2005 base year) was 102.973. This value will continue to be used as the basis for inflation calculations, even if the index is subsequently revised by the BEA.

³ Calculated from the rate increases since 2007 as follows: $1.0273 \times 1.0196 \times 1.0204 = 1.0688$, or an increase of 6.88%.

⁴ Proof of calculation: $1.0688 \times 1.0039 = 1.0730$.

Based on the results of this analysis, I believe the proposed rates meet the objectives of the City and represent acceptable modifications to the City's rate structures. Therefore, I recommend the City adopt the two proposed new GSD-2 and GSD-3 rates (and any necessary modifications to the existing rate), prepare corresponding rate tariffs and send the tariffs to the FPSC for approval.

If I can be of any further assistance, please let me know.

Thank you very much.

Sincerely,



Doug Handley
Utility Consulting Services

CITY OF LEESBURG, FLORIDA
Demand Rate Restructuring

Table 1
Page 1 of 2

	City of Leesburg			FPL		Ratio
	Billing Units	Rate	Revenues	Rate	Revenues	
EXISTING RATE - GSD:						
Rate Schedule		GSD		GSD-1		
Customer Charge	5,633	\$ 22.57	\$ 127,102	\$ 35.31	\$ 198,890	
Demand Charge	629,746	10.51	6,617,118	5.44	3,425,820	
Capacity Adjustment Factor		0.00000	-	1.93	1,215,410	
Energy Rate	231,355,253	0.04149	9,599,169	0.01485	3,435,626	
Fuel Adjustment Factor		0.03739	8,650,264	0.04181	9,672,963	
Conservation Adjustment Factor		0.00000	-	0.00170	393,304	
Environmental Adjustment Factor		0.00000	-	0.00157	363,228	
TOTAL			24,993,653		18,705,240	1.34
Variable rate portion			73.0%		74.1%	

CITY OF LEESBURG, FLORIDA
Demand Rate Restructuring

Table 1
Page 2 of 2

	City of Leesburg			FPL		
	Billing Units	Rate	Revenues	Rate	Revenues	Ratio
PROPOSED RATES						
Billing Demand of 20 kW - 500 kW						
Rate Schedule		GSD-1		GSD-1		
Customer Charge	5,501	\$ 22.57	\$ 124,123	\$ 35.31	\$ 194,229	
Demand Charge	427,579	10.51	4,492,826	5.44	2,326,030	
Capacity Adjustment Factor		0.00000	-	1.93	825,227	
Energy Rate	135,428,277	0.04149	5,619,059	0.01485	2,011,110	
Fuel Adjustment Factor		0.03739	5,063,600	0.04181	5,662,256	
Conservation Adjustment Factor		0.00000	-	0.00170	230,228	
Environmental Adjustment Factor		0.00000	-	0.00157	212,622	
TOTAL			15,299,609		11,461,703	1.33
Variable rate portion			69.8%		70.8%	
Billing Demand 500 - 2,000 kW						
Rate Schedule		GSD-2		GSLD-1		
Customer Charge	108	\$ 40.00	\$ 4,320	\$ 41.37	\$ 4,468	
Demand Charge	87,053	12.00	1,044,634	6.30	548,433	
Capacity Adjustment Factor		0.00000	-	2.31	201,092	
Energy Rate	36,868,976	0.03791	1,397,703	0.01175	433,210	
Fuel Adjustment Factor		0.03739	1,378,514	0.04177	1,540,017	
Conservation Adjustment Factor		0.00000	-	0.00166	61,203	
Environmental Adjustment Factor		0.00000	-	0.00153	56,410	
TOTAL			3,825,170		2,844,832	1.34
Variable rate portion			72.6%		73.5%	
Billing Demand Over 2,000 kW						
Rate Schedule		GSD-3		GSLD-2		
Customer Charge	24	\$ 80.00	\$ 1,920	\$ 171.54	\$ 4,117	
Demand Charge	115,114	14.90	1,715,205	6.30	725,221	
Capacity Adjustment Factor		0.00000	-	2.21	254,403	
Energy Rate	59,058,000	0.03291	1,943,599	0.01172	692,160	
Fuel Adjustment Factor		0.03739	2,208,151	0.04146	2,448,545	
Conservation Adjustment Factor		0.00000	-	0.00155	91,540	
Environmental Adjustment Factor		0.00000	-	0.00140	82,681	
TOTAL			5,868,875		4,298,667	1.37
Variable rate portion			70.7%		77.1%	
TOTAL -- All GSD Rates			24,993,654			

CITY OF LEESBURG, FLORIDA
Demand Rate Restructuring

Table 2

City of Leesburg					
Billing Units	Rate	Revenues	Billing Units	Rate	Revenues
EXISTING GSD RATE			PROPOSED RATES		
Billing Demand of 20 kW - 500 kW					
Rate Schedule		GSD			GSD-1
Customer Charge	5,501	\$ 22.57 \$ 124,123	5,501	\$ 22.57 \$ 124,123	
Demand Charge	427,579	10.51 4,492,826	427,579	10.51 4,492,826	
Capacity Adjustment Factor		0.00000 -		0.00000 -	
Energy Rate	135,428,277	0.04149 5,619,059	135,428,277	0.04149 5,619,059	
Fuel Adjustment Factor		0.03739 5,063,600		0.03739 5,063,600	
Conservation Adjustment Factor		0.00000 -		0.00000 -	
Environmental Adjustment Factor		0.00000 -		0.00000 -	
TOTAL		15,299,609			15,299,609
Billing Demand 500 - 2,000 kW					
Rate Schedule		GSD			GSD-2
Customer Charge	108	\$ 22.57 \$ 2,437	108	\$ 40.00 \$ 4,320	
Demand Charge	87,053	10.51 914,716	87,053	12.00 1,044,634	
Capacity Adjustment Factor		0.00000 -		0.00000 -	
Energy Rate	36,868,976	0.04149 1,529,732	36,868,976	0.03791 1,397,703	
Fuel Adjustment Factor		0.03739 1,378,514		0.03739 1,378,514	
Conservation Adjustment Factor		0.00000 -		0.00000 -	
Environmental Adjustment Factor		0.00000 -		0.00000 -	
TOTAL		3,825,398			3,825,170
Billing Demand Over 2,000 kW					
Rate Schedule		GSD			GSD-3
Customer Charge	24	\$ 22.57 \$ 542	24	\$ 80.00 \$ 1,920	
Demand Charge	115,114	10.51 1,209,576	115,114	14.90 1,715,205	
Capacity Adjustment Factor		0.00000 -		0.00000 -	
Energy Rate	59,058,000	0.04149 2,450,377	59,058,000	0.03291 1,943,599	
Fuel Adjustment Factor		0.03739 2,208,151		0.03739 2,208,151	
Conservation Adjustment Factor		0.00000 -		0.00000 -	
Environmental Adjustment Factor		0.00000 -		0.00000 -	
TOTAL		5,868,646			5,868,875
TOTAL - All GSD Rates		24,993,653			24,993,654

CITY OF LEESBURG, FLORIDA
Demand Rate Restructuring
Summary of Proposed Rate Adjustments

Table 3

	<u>Rate Schedule</u>	<u>Existing Rates [1]</u>	<u>GSD Rate Restructuring</u>	<u>Rates Adjusted for Annual Inflation [2]</u>
1	Effective Date	1/1/2010		11/1/2010
	Residential	RS		
2	Customer Charge	\$ 10.62		\$ 10.66
3	Energy Rate	0.08129		0.08161
	General Service, Nondemand	GS		
4	Customer Charge	\$ 10.62		\$ 10.66
5	Energy Rate	0.08847		0.08882
	General Service, Demand	GSD/GSD-1		
6	Customer Charge	\$ 22.57	\$ 22.57	\$ 22.66
7	Demand Charge	10.51	10.51	10.55
8	Energy Rate	0.04149	0.04149	0.04165
	General Service, Demand	GSD-2		
9	Customer Charge		\$ 40.00	\$ 40.16
10	Demand Charge		12.00	12.05
11	Energy Rate		0.03791	0.03806
	General Service, Demand	GSD-3		
12	Customer Charge		\$ 80.00	\$ 80.32
13	Demand Charge		14.90	14.96
14	Energy Rate		0.03291	0.03304

[1] As recommended in the 2009 Electric Rate Study and adopted effective January 1, 2010.

[2] Annual inflation adjustment based the following formula adopted by the City:

GDP Deflator Index value for second quarter of 2010 as of September 30, 2010	110.488
GDP Deflator Index value for second quarter of 2007	<u>102.973</u>
Cumulative change in index value - %	7.30%
Cumulative change in rates since 2007 - %	<u>6.88%</u>
Current year inflation adjustment - %	<u>0.39%</u>